

CLAIMS

We claim:

computer implemented

1. A method for annotating a surface of a computer model, comprising the steps of:

1

projecting two or more annotation vertices, being projected vertices, of an annotation onto the
5 surface of the model, the annotation having annotation edges that connect pairs of the annotation
vertices;

selecting a plane between a pair of the projected vertices, the plane being defined as containing
the pair of the projected vertices and a midpoint of the annotation edge that connects the pair of
the annotation vertices;

10 cutting the surface of the model with the plane, the plane intersecting the model on a cutting line;
and

reconnecting the projected vertices on the surface of the model along the cutting line to produce
the projection of the respective annotation edges on the model.

2. A method, as in claim 1, where the projected vertices and the midpoint of the annotation edge
15 are collinear and the plane is defined by containing the two projected vertices and a normal to the
surface of the model at one or more of the projected vertices.

3. A method, as in claim 1, where the projected vertices are projected on the surface within a tolerance by snapping.

4. A method, as in claim 1, where the reconnection process is a "surface walk".

5. A computer system that annotates a surface of a computer model, comprising:

5 means for projecting two or more annotation vertices, being projected vertices, of an annotation onto the surface of the model, the annotation having annotation edges that connect pairs of the annotation vertices;

10 means for selecting a plane between a pair of the projected vertices, the plane being defined as containing the pair of the projected vertices and a midpoint of the annotation edge that connects the pair of the annotation vertices;

means for cutting the surface of the model with the plane, the plane intersecting the model on a cutting line; and

means for reconnecting the projected vertices on the surface of the model along the cutting line to produce the projection of the respective annotation edges on the model.

usable
15 6. A computer product having a program comprising the steps of:

projecting two or more annotation vertices, being projected vertices, of an annotation onto the surface of the model, the annotation having annotation edges that connect pairs of the annotation vertices;

selecting a plane between a pair of the projected vertices, the plane being defined as containing
5 the pair of the projected vertices and a midpoint of the annotation edge that connects the pair of the annotation vertices;

cutting the surface of the model with the plane, the plane intersecting the model on a cutting line;
and

reconnecting the projected vertices on the surface of the model along the cutting line to produce
10 the projection of the respective annotation edges on the model.